Meyers, T. R., D. Korn, T. M. Burton, K. Glass, J. E. Follett, J. B. Thomas, J. Sullivan, N. Starkey, S. Short, K. Lipson. 2003. Infectious hematopoietic necrosis virus (IHNV) in Alaskan sockeye salmon culture from 1973 to 2000: annual virus prevalences and titers in broodstocks compared with juvenile losses. Journal of Aquatic Animal Health 15:(1)21-30.

Abstract: During the early 1970s, the Alaska Department of Fish and Game implemented a program to produce sockeye salmon Oncorhynchus nerka for several statewide enhancement projects. Large-scale hatchery production of juvenile fish was very successful after initiation of the department's Sockeye Salmon Culture Policy (SSCP) in 1981 to control losses from infectious hematopoietic necrosis virus (IHNV). The prevalences of IHNV and percentages of virus-positive broodstock with high titers varied yearly but generally were correlated. Higher percentage losses of juvenile hatchery fish from IHNV occurred when virus levels were high in the parent broodstocks and when SSCP criteria were compromised. During 1980-1988, the total virus prevalences and percentages of fish with high titers were significantly greater in postspawned than in spawning fish. During 1993-1999, the total percentage losses of juvenile sockeye salmon from IHNV were found to be significantly higher for fish larger than 1 g due to the greater numbers of fish within individual rearing units and the apparent horizontal transmission of the virus in certain raceway and net-pen configurations. Although IHNV continues to be a major risk in Alaskan sockeye salmon culture, strict use of commonsense procedures has reduced the losses of juveniles to levels below those caused by nonspecific mortality during routine fish husbandry.

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